PTO/SB/21 (09-04) (AW 10/2004)
Approved for use through 7/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission 16

Application Number	09/050,808
Filing Date	March 30, 1998
First Named Inventor	Yutaka Machida
Art Unit	2613
Examiner Name	Allen C. Wong
Attorney Docket No.	MAT-5860

ENCLOSURES *(Check all that apply)*

- ☐ Fee Transmittal Form
  - ☐ Fee Attached
- ☐ Amendment/Reply
  - ☐ After Final
  - ☐ Affidavits/Declaration(s)
- ☐ Extension of Time Request
- ☐ Express Abandonment Request
- ☐ Information Disclosure Statement
- ☐ Certified Copy of Priority Document(s)
- ☐ Response to Missing Parts/ Incomplete Application
  - ☐ Response to Missing Parts under 37 CFR 1.52 or 1.53
- ☐ Drawing(s)
- ☐ Licensing-related Papers
- ☐ Petition
- ☐ Petition to Convert to a Provisional Application
- ☐ Power of Attorney, Revocation, Change of Correspondence Address
- ☐ Terminal Disclaimer
- ☐ Request for Refund
- ☐ CD, Number of CD(s) _____
  - ☐ Landscape Table on CD
- ☐ After Allowance Communication to TC
- ☐ Appeal Communication to Board of Appeals and Interferences
- ☒ Appeal Communication to TC (**Appeal Notice, Brief, Reply Brief**)
- ☐ Proprietary Information
- ☐ Status Letter
- ☒ Other Enclosure(s) (please identify below): Fee Transmittal; PTO-2038; Return Receipt Postcard

Remarks:

SIGNATURE OF APPLICANT, ATTORNEY OR AGENT

Firm Name	RatnerPrestia		
Signature			
Printed Name	Lawrence E. Ashery		
Date	February 9, 2005	*Registration No.*	34,515

CERTIFICATE OF TRANSMISSION / MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:

Signature	Donna M. Wellings		
Typed or Printed Name	Donna M. Wellings	*Date*	February 9, 2005

PTO/SB/17 (12-04v2) (AW 1/2005)
Approved for use through 7/31/2006. OMB 0651-0032
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Effective on 12/08/04.
Fees pursuant to the Consolidated Appropriations Act. 2005 (H.R. 4818).

FEE TRANSMITTAL For FY 2005

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT ($) 500.

Complete if Known	
Application Number	09/050,808
Filing Date	March 30, 1998
First Named Inventor	Yutaka Machida
Examiner Name	Allen C. Wong
Art Unit	2613
Attorney Docket No.	MAT-5860

METHOD OF PAYMENT (check all that apply)

☐ Check ☒ Credit Card ☐ Money Order ☐ None ☐ Other (please identify):_____

☐ Deposit Account Deposit Account Number: **18-0350** Deposit Account Name: **RatnerPrestia**

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☐ Charge fee(s) indicated below
☐ Charge fee(s) indicated below, **except for the filing fee**
☒ Charge any additional fee(s) or underpayment of fee(s) under 37 CFR 1.16 and 1.17
☒ Credit any overpayments

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

FEE CALCULATION

1. BASIC FILING, SEARCH, AND EXAMINATION FEES

	FILING FEES		SEARCH FEES		EXAMINATION FEES		
		Small Entity		Small Entity		Small Entity	
Application Type	Fee ($)	Fee ($)	Fee ($)	Fee ($)	Fee ($)	Fee ($)	Fees Paid ($)
Utility	300	150	500	250	200	100	____
Design	200	100	100	50	130	65	____
Plant	200	100	300	150	160	80	____
Reissue	300	150	500	250	600	300	____
Provisional	200	100	0	0	0	0	____

2. EXCESS CLAIM FEES

Fee Description	Small Entity Fee ($)	Small Entity Fee ($)
Each claim over 20 (including Reissues)	50	25
Each independent claim over 3 (including Reissues)	200	100
Multiple dependent claims	360	180

Total Claims		Extra Claims		Fee ($)		Fee Paid ($)	Multiple Dependent Claims Fee ($)	Multiple Dependent Claims Fee Paid ($)
_____	- 20 or HP =	_____	x	_____	=	_____	____	____

HP = highest number of total claims paid for, if greater than 20

Indep. Claims		Extra Claims		Fee ($)		Fee Paid ($)
_____	- 3 or HP =	_____	x	_____	=	_____

HP = highest number of independent claims paid for, if greater than 3

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is $250 ($125 for small entity) for each 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets		Extra Sheets		Number of each additional 50 or fraction thereof		Fee ($)		Fee Paid ($)
_____	- 100 =	_____	/ 50 =	_____	(round up to a whole number) x	_____	=	_____

4. OTHER FEE(S)

Fees Paid ($) ____

Non-English Specification, $130 fee (no small entity discount)

Other (e.g., late filing surcharge): **Difference between current Appeal Brief Fee ($500.) and Previous Appeal Brief Fee ($330.)** **170.**

SUBMITTED BY					Complete *(if applicable)*
Signature		Registration No. Attorney/Agent)	34,515	Telephone	610-407-0700
Name (Print/Type)	Lawrence E. Ashery			Date	February 9, 2005

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.:	09/050,808
Appellant:	Yutaka Machida
Filed:	March 30, 1998
Title:	DECODING AND CODING METHOD OF MOVING IMAGE SIGNAL, AND DECODING AND CODING APPARATUS OF MOVING IMAGE SIGNAL USING THE SAME
TC/A.U.:	2613
Examiner:	Allen C. Wong
Confirmation No.:	7277
Docket No.:	MAT-5860

SUPPLEMENTAL APPEAL BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Further to the Request For Reinstatement Of Appeal dated December 29, 2004, Appellant is submitting this Supplemental Appeal Brief for the above-identified application.

I. REAL PARTY IN INTEREST

The real party in interest is Matsushita Electric Industrial Co., Ltd.

II. RELATED APPEALS AND INTERFERENCES

There are no appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

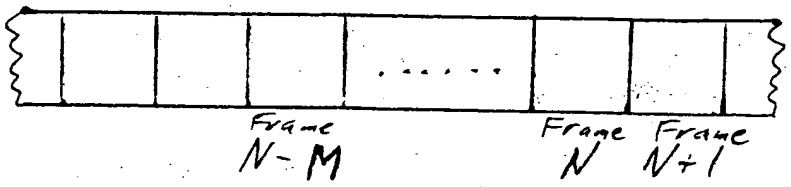
Claims 2, 7 and 12-22 are pending. Claims 1, 3-6 and 8-11 have been cancelled. Claims 2, 7 and 12-22 have been appealed.

IV. STATUS OF AMENDMENTS

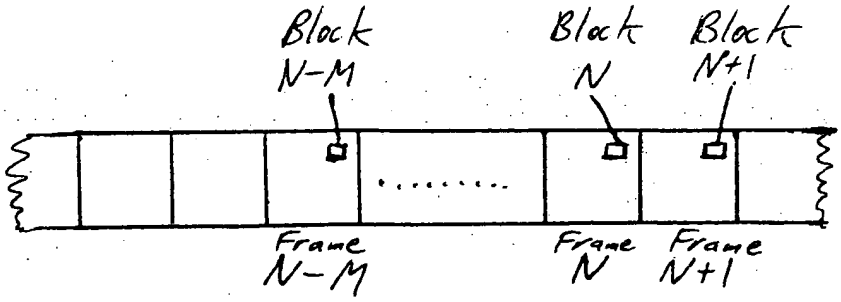
An Amendment after final rejection was filed on February 27, 2004. Appellant's representative argued that this Amendment did not raise new issues. The Examiner disagreed. Accordingly, that Amendment has not been entered.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The present invention relates to a method for decoding a block in a frame. The frame is one of a plurality of successive frames (Appellant's Fig. 2) in a predictively coded image signal. Thus, the plurality of frames may be referred to as frames N-M, N, and N+1 where M is ≧ 1. This is illustrated below.



The first step is to evaluate block N of frame N and block N-M of frame N-M (Appellant's specification, page 11, lines 23-26). Block N and block N-M are in corresponding locations. This is illustrated below:



An error is identified in block N or block N-M (Appellant's specification, page 12, lines 13-15).

If the error is identified in block N, then block N-M is used to decode block N+1. If the error is found in block N-M, then block N is used to decode block N+1 (Appellant's specification, page 13, lines 17-21).

An apparatus is also disclosed (and illustrated in Appellant's Fig 1) for performing the method set forth above. Thus, a detector evaluates block N (of frame N) and block N-M (of frame N-M). If the detector identifies an error in block N, then block N-M is used to decode block N+1. If the detector identifies an error in block N-M, then block N is used to decode block N+1.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 2, 7 and 12-22 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Parke (U.S. Patent No. 5,982,439) in view of Sun (U. S. Patent No. 5,247,363).

VIII. ARGUMENT

Claims 2, 7 and 12-22 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Parke (U.S. Patent No. 5,982,439) in view of Sun (U.S. Patent No. 5,247,363). This rejection is respectfully traversed for the reasons set forth below.

Appellant's invention, as recited by claim 21, includes a feature which is neither disclosed nor suggested by the art of record, namely:

> ...evaluating block N of frame N and block N-M of frame N-M...
>
> ...identifying an error in one of block N and block N-M...

On page three of the Official Action, the Official Action indicates that Appellant's claimed feature of identifying an error is disclosed in Parke at column 13, lines 12-39. Appellant's have reviewed Parke at the aforementioned lines. At the aforementioned lines, there is no mention of "identifying an error" as is claimed by Appellant. Accordingly, claim 21 is patentable over Parke.

Appellant's invention, as recited by claim 21, includes a further feature which is neither disclosed nor suggested by the art of record, namely:

...evaluating block N of frame N and block N-M of frame N-M of said signal, or in blocks N-M, N and N+N are in corresponding locations of frames N-M, N and N+1, respectively...

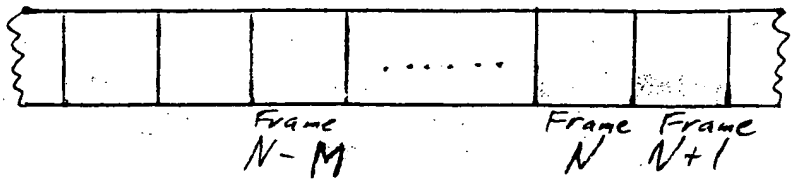
Parke lacks Applicant's claimed "corresponding locations of frames..." At column 13, line 12, Parke discloses the "telescoping concept". At column 13, line 16, Parke is very clear that by calculating a motion vector, this "effectively re-positions block 72 to block 76". Thus, block 76 is block 72 after block 72 has been repositioned. This is completely different than Applicant's claimed feature of evaluating "blocks N-M, N and N+N" which "are in corresponding locations of frames N-M, N and N+1, respectively.

Appellant's invention, is recited by claim 21, includes a further feature which is neither disclosed nor suggested by Parke, namely:

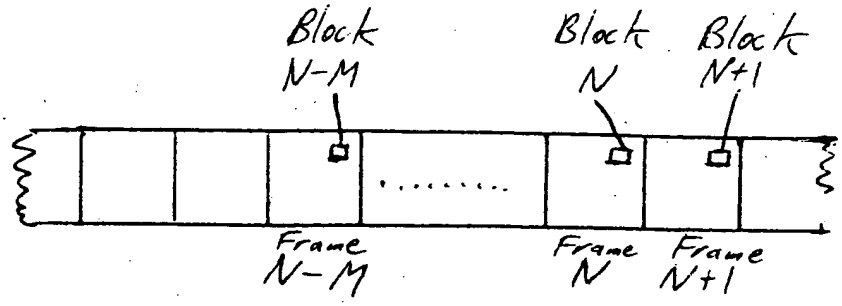
...identifying an error in one of block N and block N-M...

...using the other of block N and block N-M to decode block N+1...

However, Parke says absolutely nothing about identifying an error in one previous frame and then using another previous frame to decode the present block. More specifically, Appellant's claim relates to the following frame sequence:



Each frame has a block in a corresponding location as shown:



Appellant's have claimed the features of:

... identifying an error in one of block N and block N-1...

...using the other of block N and block N-1 to decode block N+1.

Thus, if there is an error in block N, then block N-M is used to decode block N+1. Similarly, if there is an error in block N-M, then block N is used to decode block N+1.

Parke, does not disclose detecting an error in one of frame N-M and frame N and then using the other of frame N-M and frame N to decode frame N+1. Furthermore, Parke does not disclose detecting an error in block N-M or N and then using the other of block N-M or N to decode block N+1. In addition, Parke does not disclose the above with blocks N-M, N and frame N+1 being in corresponding locations in frames N-M, N and N+1. Parke only discloses "telescoping" which is different than Appellant's claimed feature of using one error free frame of two previous frames to correct an error in a current frame. In "telescoping" a block is repositioned into a successive frame. "Telescoping" also relates to a block situated away from a corresponding location in a subsequent (see column 13, line 65, of Parke where an area plus or minus 15 pixel positions is searched). For this additional reason, claim 21 is patentable over the art of record.

On page three, bottom paragraph, the Official Action acknowledged that Appellant's claims are directed to decoding and that Parke has absolutely no disclosure of decoding. More specifically, Parke is directed to encoding. In order to reject Appellant's claims, Parke was combined with Sun which indeed does disclose

decoding. Thus, Appellant's claims have been rejected by combining the Parke encoding patent with the Sun decoding patent. This is typically known as a "teaching away" scenario in which two references are combined despite the fact that they teach away from each other. In this case, Parke and Sun are directed to processes that are completely opposite in nature. The references teach away from each other by teaching completely opposite processes. An encoding process is not modifiable by a decoding process disclosure. Conversely, a decoding process is not modifiable by an encoding process disclosure. For this additional reason, claim 21 is patentable over the art of record.

Claim 22, while not identical to claim 21, includes features similar to those set forth above with regard to claim 21. Accordingly, claim 22 is patentable over the art of record.

The remaining claims are all patentable by virtue of their dependency on either allowable independent claim 21 or allowable independent claim 22.

In view of the arguments set forth above, the above-identified application is in condition for allowance which action is respectfully requested.

Respectfully Submitted,

RatnerPrestia

Lawrence E. Ashery, Reg. No. 34,515
Attorney for Appellant

LEA/ds/dmw
Enclosure: Pending claims
Dated: February 9, 2005

Suite 301
One Westlakes, Berwyn
P.O. Box 980
Valley Forge, PA 19482
(610) 407-0700

The Assistant Commissioner is hereby authorized to charge payment to Deposit Account No. **18-0350** of any fees associated with this communication.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to Mail Stop Appeal Brief - Patents, Commissioner For Patents, P.O. Box 1450, Alexandria, VA, 22313-1450 on February 9, 2005.

Donna M. Wellings

DMW_I:\MAT\5860\APPEAL BRIEF SUPP.DOC

APPENDIX OF CLAIMS

1. (Cancelled)

2. (Previously Presented) The method of decoding an image signal of claim 12, wherein if the predicted pixel blocks are free from decoding error,

the predicted pixel blocks produced from a latest decoded frame is used in reconstruction of the present pixel block.

3. (Cancelled)

4. (Cancelled)

5. (Cancelled)

6. (Cancelled)

7. (Previously Presented) The decoding apparatus of claim 20, wherein the means for storing stores bit errors of plural video frames by plotting pixel blocks in which bit error is detected in each video frame in a form of decoding error maps.

8. (Cancelled)

9. (Cancelled)

10. (Cancelled)

11. (Cancelled)

12. (Previously Presented) A method of decoding block N+1 according to claim 21, wherein the image signal is a bit stream of a coded compressed video signal, the method further comprising the steps of:

decoding the bit stream for information defining pixel blocks, the information including motion vectors;

step b) includes the step of detecting an error in the information of one of the pixel blocks being blocks N and N-M in each of at least two frames which are prior to a present frame said present frame being frame N+1, said at least two frames being frames N and N-M;

storing error information of the one of the pixel blocks in each of the at least two frames which are prior to the present frame, in an error memory;

storing, in a frame memory, video information of the at least two frames which are prior to a present frame;

generating from the decoded motion vectors at least two predicted pixel blocks corresponding to a present pixel block in the present frame;

step b) further includes the step of judging if one of the at least two predicted pixel blocks corresponds to error information of the at least two frames stored in the error memory; and

step c) includes the step of using one of the at least two predicted pixel blocks in reconstructing the present pixel block based on the judging.

13. (Previously Presented) The method for decoding an image signal of claim 12, wherein each of the predicted pixel blocks is generated from reconstructed video frames by using motion vectors which correspond to the reconstructed video frames.

14. (Previously Presented) The method for decoding an image signal of claim 12, wherein if one of the at least two predicted pixel blocks is judged to correspond to error information stored in the error memory, the other of the at least two predicted pixel blocks is used in reconstruction of the present pixel block.

15. (Previously Presented) The method of decoding an image signal of claim 12, wherein if the at least two predicted pixel blocks are judged not to correspond to error information stored in the error memory, an average of the at least two predicted pixel blocks is used in reconstructing of the present pixel block.

16. (Previously Presented) A method of decoding block N+1 according to claim 21, said method further for reconstructing video frames of the image signal, the method further comprising the steps of:

decoding the image signal for information to define pixel blocks of video frames, the information including motion vectors;

step b) includes the step of generating decoding error maps indicating decoding errors of pixel blocks being blocks N and N-M in each of at least two

frames which are prior to a present video frame said present frame being frame N+1, said at least two frames being frames N and N-M;

storing the decoding error maps in error memory;

storing, in a frame memory, video information of the at least two frames which are prior in time to the present video frame;

generating from the decoded motion vectors at least two predicted pixel blocks corresponding to a present pixel block in the present video frame; and

step b) further includes the steps of determining if a predicted pixel block includes decoding errors corresponding to decoding errors in either of the at least two frames which are prior to the present frame; and based on the determining, judging if the predicted pixel block is used in reconstructing the present video block.

17. (Previously Presented) A decoding apparatus according to claim 22, wherein said detector includes

a decoding device for decoding the image signal to define pixel blocks of video frames, the image signal including motion vectors;

means for detecting decoding errors of the pixel blocks being blocks N and N-M in each of at least two frames which are prior to a present video frame said present frame being frame N+1, said at least two frames being frames N and N-M;

an error memory for storing decoding error maps of the decoding errors of the pixel blocks in each of the at least two frames which are prior to the present frame;

motion compensation means for generating from the decoded motion vectors at least two predicted pixel blocks corresponding to a present block which is block N+1 in a present video frame which is frame N+1; and

predicted image selecting means, based on the decoding error maps, determining if the predicted pixel blocks include decoding errors corresponding to decoding errors in either of the at least two frames which are prior to the present frame, and thereby determining use of the predicted pixel blocks in reconstructing the present block.

18. (Previously Presented) The decoding apparatus of claim 17, wherein the video signal is a bit stream of variable length code, and the decoding device separates and decodes the variable length code from the bit stream and writes presence or absence of decoding errors in the decoding error maps.

19. (Previously Presented) The decoding apparatus of claim 17, wherein the motion compensation means generates one predicted pixel block based on a reconstructed video frame which is one frame before the present frame, and generates another predicted pixel block based on a reconstructed video frame which is two frames before the present frame.

20. (Previously Presented) A decoding apparatus according to claim 22, wherein said detector includes

means for decoding the bit stream for information defining pixel blocks, the information including motion vectors;

means for detecting an error in the information of one of the pixel blocks being blocks N and N-M in each of at least two frames which are prior to a present frame said present frame being frame N+1, said at least two frames being frames N and N-M;

means for storing error information of the one of the pixel blocks in each of the at least two frames which are prior to the present frame;

means for storing video information of the at least two frames which are prior to a present frame;

means for generating from the decoded motion vectors at least two predicted pixel blocks corresponding to a present pixel block which is block N+1 in the present frame;

means for judging if one of the at least two predicted pixel blocks corresponds to error information of the at least two frames stored in the means for storing; and

means for determining if the one of the at least two predicted pixel blocks is used in reconstructing the present block, based on judging of the means for judging.

21. (Previously Presented) A method of decoding block N+1 in frame N+1 of successive frames of a predictively coded image signal, said method comprising the steps of:

a) evaluating block N of frame N and block N-M of frame N-M of said signal, wherein blocks N-M, N and N+1 are in corresponding locations of frames N-M, N and N+1, respectively, M=>1;

b) identifying an error in one of block N and block N-M;

c) using the other of block N and block N-M to decode block N+1.

22. (Previously Presented) Apparatus for decoding block N+1 in frame N+1 of successive frames of a predictively coded image signal, said apparatus comprising:

a detector for evaluating block N of frame N and block N-M of frame N-M of said signal, wherein blocks N-M, N and N+1 are in corresponding locations of frames N-M, N and N+1, respectively, M=>1 and for identifying an error in one of block N and block N-M; and

a decoder for using the other of block N and block N-M to decode block N+1.